Claims

1. A nucleic acid molecule having a nucleic acid sequence that encodes a linker region of exoglucanase, said nucleic acid sequence comprising the nucleotide sequence: 5'-GGCGGAAACCCGCCTGGCACCACC-3'.

2. The nucleic acid molecule of claim 1 wherein said exoglucanse is further defined as a cellobiohydrolase.

3. The nucleic acid molecule of claim 1 wherein said exoglucanase is further defined as a 1,4-β-cellobiohydrolase.

4. The nucleic acid molecule of claim 1 whereas said nucleic acid sequence is further defined as comprising: 5'-

5. CCTCCCGGCGGAAAC*CCGCCT*GGCACCACCACCACCCGCCGCCCA-3'.

6. A nucleic acid molecule having a nucleic acid sequence encoding a variant cellobiohydrolase, said nucleic acid sequence comprising a linker region sequence having a length of from about 20 nucleotides to about 50 nucleotides linker region, between a catalytic domain and a cellulose binding domain (CBD).

7. The nucleic acid molecule of claim 5 wherein the variant cellobiohydrolase is further defined as having enhanced thermostability.

8. The nucleic acid molecule of claim 5 wherein the variant cellobiohydrolase is further defined as an 1,4 β-cellobiohydrolase.

9. The nucleic acid molecule of claim 5 wherein the cellobiohydrolase is further defined as having reduced end-product inhibition.

10. The nucleic acid molecular of claim 5 wherein the linker region sequence has a length of about 24 nucleotides.

11. A method for making an active exoglucanase in a eukaryotic heterologous host, the method comprising reducing glycosylation of the exoglucanase, wherein reducing comprises replacing an N-glycosylation site amino acid residue with non-glycosyl accepting amino acid residue.

12. The method of claim 10, wherein the N-glycosylation site amino acid residues include asparagines 45, 270, or 384 of Table 4 and the non-glycosyl accepting amino acid residue includes alanine.

13. The method of claims 10, wherein replacing comprises site-directed mutagenisis.

14. The methods of claims 10, wherein the exoglucanase comprises a cellobiohydrolase.

15. An exoglucanase, comprising of the sequence change of Table 4, N45A 5'-GGACTCACGCTACG**GC**CAGCAGCACGAACTGC-3'.

16. An exoglucanase, comprising of the sequence change of Table 4, N270A, 5'-CCCATACCGCCTGGGC**GC**CACCAGCTTCTACGGCCC-3'

17. An exoglucanase, comprising of the sequence change of Table 4, N384A, 5'-GGACTCCACCTACCCGACA**GC**CGAGACCTCCTCCACACCCG-3'

18. An exoglucanase, comprising a combination of claims 14,15,16.